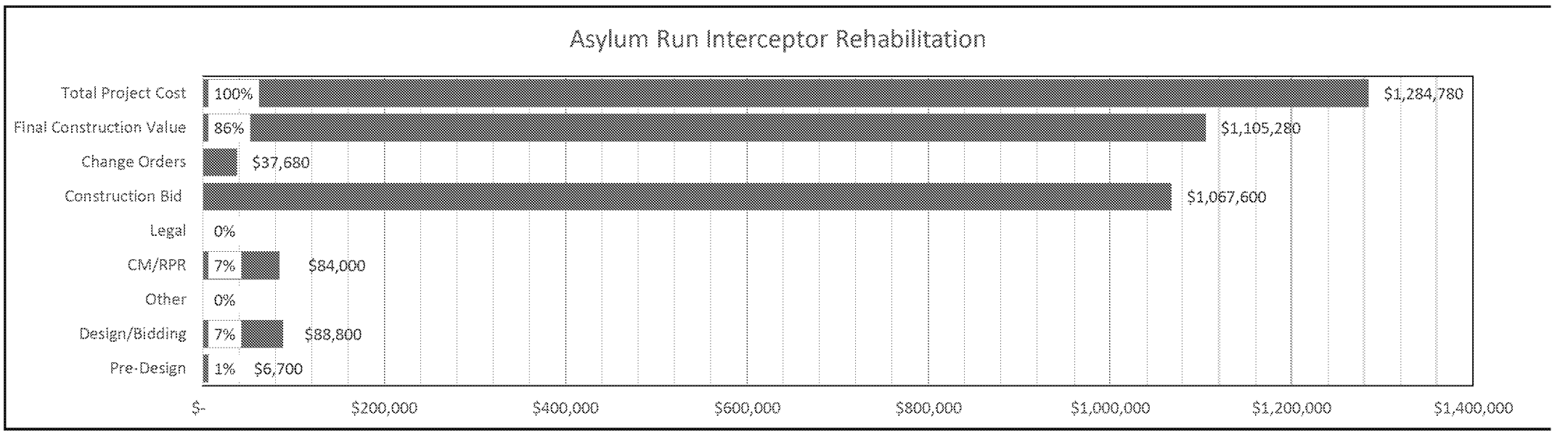
Project: Asylum Run Interceptor Rehabilitation **80800801-80100-00059**

	Cost	% of Total	Firm(s)	Source*	Date	Notes
Pre-Design	$ 6,700	1%	HRG	TO 2017-16-01	5/24/2017	
Design/Bidding	$ 88,800	7%	HRG	TO 2017-16-01 & 02	5/24/2017	
Other		0%				
CM/RPR	$ 84,000	7%	HRG	TO 2017-16-02	2/28/2018	
Legal		0%				
Construction Bid	$ 1,067,600			bid tab	2/14/2018	
Change Orders	$ 37,680					
Final Construction Value	$ 1,105,280	86%	Joao & Bradley Construction	Final AFP No. 3	10/9/2019	
% Change Orders	*3.5%*					

Total Project Cost **$ 1,284,780** 100%

* Actual contract amount, engineer's estimate (% design), etc.



HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services
AN EMPLOYEE-OWNED COMPANY

Item #	Description		
GENERAL			
1	MOBILIZATION PROJECT MANAGEMENT		
2	EROSION SEDIMENTATION CONTROL		
3	TRAFFIC MAINTENANCE PROTECTION		
4	BY-PASS PUMPING		
5	CLEARING AND GRUBBING		
SEWER PIPE, APPURTENANCES, AND RELATED WORK			
6	15" SDR 35 PVC SANITARY SEWER PIPE INSTALLATION		
7	18" PS46 PVC SANITARY SEWER PIPE INSTALLATION		
8	24" PS115 PVC SANITARY SEWER PIPE INSTALLATION		
9	15" SEWER RECONNECTION		
10	24" SEWER RECONNECTION		
11	24" CONNECTION TO EXISTING MANHOLE		
12	24" CURED-IN-PLACE PIPE LINING		
13	CIPP SEWER LATERAL REINSTATEMENT		
14	CIPP INTERNAL GRINDING/CUTTING OF EXISTING LATERALS		
15	CHEMICAL GROUT		
SEWER EXCAVATON AND BACKFILL			
16	0' - 10' DEPTH		
17	10' - 14' DEPTH		
18	14' PLUS DEPTH		
SEWER MANHOLES, APPURTENANCES, AND RELATED WORK			
19	MANHOLE SSMH - DGS1 INSTALLATION		
20	MANHOLE SSMH - DGS2 INSTALLATION		
21	MANHOLE SSMH - 004305 INSTALLATION		
22	MANHOLE SSMH - 004307 INSTALLATION		
23	MANHOLE SSMH - 004308 INSTALLATION		
24	MANHOLE SSMH - 003133 REPLACEMENT		
25	MANHOLE SSMH - 003099 REPLACEMENT		
26	MANHOLE SSMH - 000449 REPLACEMENT		
27	MANHOLE SSMH - 003112 REPLACEMENT		
28	MANHOLE SSMH - 001589 REHABILITATION		
29	MANHOLE SSMH - 000450 REHABILITATION		

						Projec
		Joao & Bradley Construction Co., Inc.		Michels Corporation		DOLI Constructio
Estimated Quantity	Unit Of Measure	Unit Cost	Extension	UNIT Cost	Extension	Unit Cost
1	L.S.	$ 65,000.00	$ 65,000.00	$ 42,000.00	$ 42,000.00	$ 110,000.00
1	L.S.	$ 20,000.00	$ 20,000.00	$ 28,000.00	$ 28,000.00	$ 5,000.00
1	L.S.	$ 5,000.00	$ 5,000.00	$ 30,000.00	$ 30,000.00	$ 500.00
1	L.S.	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 168,000.00
1	L.S.	$ 15,500.00	$ 15,500.00	$ 25,000.00	$ 25,000.00	$ 15,000.00
60	L.F.	$ 120.00	$ 7,200.00	$ 200.00	$ 12,000.00	$ 65.00
47	L.F.	$ 140.00	$ 6,580.00	$ 225.00	$ 10,575.00	$ 95.00
965	L.F.	$ 150.00	$ 144,750.00	$ 240.00	$ 231,600.00	$ 105.00
2	EA.	$ 2,000.00	$ 4,000.00	$ 1,100.00	$ 2,200.00	$ 2,200.00
9	EA.	$ 4,000.00	$ 36,000.00	$ 1,580.00	$ 14,220.00	$ 2,500.00
3	EA.	$ 4,000.00	$ 12,000.00	$ 1,100.00	$ 3,300.00	$ 2,200.00
2126	L.F.	$ 135.00	$ 287,010.00	$ 142.00	$ 301,892.00	$ 153.00
5	EA.	$ 500.00	$ 2,500.00	$ 402.00	$ 2,010.00	$ 500.00
4	EA.	$ 700.00	$ 2,800.00	$ 256.00	$ 1,024.00	$ 600.00
50	GAL.	$ 110.00	$ 5,500.00	$ 70.00	$ 3,500.00	$ 120.00
10	L.F.	$ 60.00	$ 600.00	$ 40.00	$ 400.00	$ 190.00
1021	L.F.	$ 80.00	$ 81,680.00	$ 45.00	$ 45,945.00	$ 195.00
108	L.F.	$ 145.00	$ 15,660.00	$ 50.00	$ 5,400.00	$ 250.00
1	EA.	$ 7,000.00	$ 7,000.00	$ 7,000.00	$ 7,000.00	$ 8,500.00
1	EA.	$ 7,000.00	$ 7,000.00	$ 7,000.00	$ 7,000.00	$ 8,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 7,000.00	$ 7,000.00	$ 10,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 7,000.00	$ 7,000.00	$ 8,000.00
1	EA.	$ 20,000.00	$ 20,000.00	$ 7,500.00	$ 7,500.00	$ 14,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 7,000.00	$ 7,000.00	$ 10,000.00
1	EA.	$ 25,000.00	$ 25,000.00	$ 10,500.00	$ 10,500.00	$ 20,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 7,500.00	$ 7,500.00	$ 17,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 7,000.00	$ 7,000.00	$ 9,500.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 19,000.00	$ 19,000.00	$ 7,000.00
1	EA.	$ 8,000.00	$ 8,000.00	$ 19,000.00	$ 19,000.00	$ 6,000.00
		Joao & Bradley Construction Co., Inc.		Michels Corporation		DOLI Constructio

	Owner: Capital Region Water	
t: Asylum Run Interceptor Rehabilitation Project		
	Contract: 2017-16	
	Bid Date: February 14, 2018	
		4379.0477
n Corporation	**Guyer Brothers, Inc.**	
Extension	**Unit Cost**	**Extension**
$ 110,000.00	$ 75,000.00	$ 75,000.00
$ 5,000.00	$ 18,500.00	$ 18,500.00
$ 500.00	$ 48,000.00	$ 48,000.00
$ 168,000.00	$ 65,000.00	$ 65,000.00
$ 15,000.00	$ 29,000.00	$ 29,000.00
$ 3,900.00	$ 62.00	$ 3,720.00
$ 4,465.00	$ 68.00	$ 3,196.00
$ 101,325.00	$ 72.00	$ 69,480.00
$ 4,400.00	$ 1,805.00	$ 3,610.00
$ 22,500.00	$ 2,300.00	$ 20,700.00
$ 6,600.00	$ 1,750.00	$ 5,250.00
$ 325,278.00	$ 184.00	$ 391,184.00
$ 2,500.00	$ 578.00	$ 2,890.00
$ 2,400.00	$ 770.00	$ 3,080.00
$ 6,000.00	$ 138.00	$ 6,900.00
$ 1,900.00	$ 105.00	$ 1,050.00
$ 199,095.00	$ 138.00	$ 140,898.00
$ 27,000.00	$ 170.00	$ 18,360.00
$ 8,500.00	$ 10,871.00	$ 10,871.00
$ 8,000.00	$ 10,629.00	$ 10,629.00
$ 10,000.00	$ 12,164.00	$ 12,164.00
$ 8,000.00	$ 11,617.00	$ 11,617.00
$ 14,000.00	$ 15,145.00	$ 15,145.00
$ 10,000.00	$ 11,458.00	$ 11,458.00
$ 20,000.00	$ 14,907.00	$ 14,907.00
$ 17,000.00	$ 13,293.00	$ 13,293.00
$ 9,500.00	$ 11,557.00	$ 11,557.00
$ 7,000.00	$ 7,800.00	$ 7,800.00
$ 6,000.00	$ 7,800.00	$ 7,800.00
n Corporation	**Guyer Brothers, Inc.**	

Item #	Description		
30	MANHOLE SSMH - 000445 REHABILITATION		
SURFACING / RESTORATION			
31	MUNICIPAL HMA - BASE COURSE PAVEMENT RESTORATION (S-3.01)		
32	MUNICIAL HMA - WEARING COURSE PAVEMENT RESTORATION (S-3.01)		
33	MUNICIPAL HMA - BASE COURSE PAVEMENT RESTORATION (S-3.11)		
34	MUNICIPAL HMA - WEARING COURSE PAVEMENT RESTORATION (S-3.11)		
35	PRIVATE HMA - BASE COURSE PAVEMENT RESTORATION (S-2.01)		
36	PRIVATE HMA - WEARING COURSE PAVEMENT RESTORATION (S-2.01)		
37	TEMPORARY PAVING SURFACE RESTORATION		
38	VEGETATIVE SURFACE RESTORATION (S-1.01)		
39	STREAM BANK RESTORATION (S-1.02)		
40	CONCRETE AND STONE OPEN CHANNEL CULVERT RESTORATION		
MISCELLANEOUS			
41	FLOWABLE FILL		
42	CLAY DIKE		
43	UNSUITABLE BEARING MATERIAL REPLACEMENT		
44	ADDITIONAL UNCLASSIFIED EXCAVATION		
45	ADDITIONAL AGGREGATE BACKFILL		
46	MISCELLANEOUS CONCRETE		
			I HEREBY CERTIFY THAT THIS IS A TRUE AND C

Estimated Quantity	Unit Of Measure	Unit Cost	Extension	UNIT Cost	Extension	Unit Cost
1	EA.	$ 8,000.00	$ 8,000.00	$ 19,000.00	$ 19,000.00	$ 6,000.00
35	S.Y.	$ 100.00	$ 3,500.00	$ 95.00	$ 3,325.00	$ 40.00
35	S.Y.	$ 25.00	$ 875.00	$ 36.00	$ 1,260.00	$ 8.00
158	S.Y.	$ 50.00	$ 7,900.00	$ 70.00	$ 11,060.00	$ 40.00
158	S.Y.	$ 25.00	$ 3,950.00	$ 30.00	$ 4,740.00	$ 20.00
70	S.Y.	$ 50.00	$ 3,500.00	$ 80.00	$ 5,600.00	$ 24.00
70	S.Y.	$ 25.00	$ 1,750.00	$ 36.00	$ 2,520.00	$ 12.00
263	S.Y.	$ 15.00	$ 3,945.00	$ 40.00	$ 10,520.00	$ 5.00
1	L.S.	$ 30,000.00	$ 30,000.00	$ 11,000.00	$ 11,000.00	$ 4,000.00
1	L.S.	$ 10,000.00	$ 10,000.00	$ 15,000.00	$ 15,000.00	$ 2,000.00
1	L.S.	$ 5,000.00	$ 5,000.00	$ 6,000.00	$ 6,000.00	$ 1,000.00
40	C.Y.	$ 200.00	$ 8,000.00	$ 200.00	$ 8,000.00	$ 250.00
9	EA.	$ 100.00	$ 900.00	$ 650.00	$ 5,850.00	$ 150.00
10	C.Y.	$ 50.00	$ 500.00	$ 85.00	$ 850.00	$ 50.00
10	C.Y.	$ 50.00	$ 500.00	$ 200.00	$ 2,000.00	$ 30.00
10	TON	$ 50.00	$ 500.00	$ 85.00	$ 850.00	$ 20.00
10	C.Y.	$ 200.00	$ 2,000.00	$ 200.00	$ 2,000.00	$ 125.00
	TOTAL		**$ 1,067,600.00**		**$ 1,124,141.00**	

ORRECT TABULATION OF BIDS RECEIVED WEDNESDAY, FEBRUARY 14, 2018

EDWRD A. ELLINGER, P.E.
HERBERT, ROWLAND & GRUBIC., INC.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
EDWARD ALLEN ELLINGER
ENGINEER NO. PE076632

Extension	Unit Cost	Extension
$ 6,000.00	$ 7,500.00	$ 7,500.00
$ 1,400.00	$ 336.00	$ 11,760.00
$ 280.00	$ 52.00	$ 1,820.00
$ 6,320.00	$ 77.00	$ 12,166.00
$ 3,160.00	$ 37.00	$ 5,846.00
$ 1,680.00	$ 130.00	$ 9,100.00
$ 840.00	$ 52.30	$ 3,661.00
$ 1,315.00	$ 28.00	$ 7,364.00
$ 4,000.00	$ 54,440.00	$ 54,440.00
$ 2,000.00	$ 16,000.00	$ 16,000.00
$ 1,000.00	$ 6,000.00	$ 6,000.00
$ 10,000.00	$ 217.00	$ 8,680.00
$ 1,350.00	$ 1,000.00	$ 9,000.00
$ 500.00	$ 37.00	$ 370.00
$ 300.00	$ 18.00	$ 180.00
$ 200.00	$ 36.00	$ 360.00
$ 1,250.00	$ 250.00	$ 2,500.00
$ 1,165,458.00		**$ 1,189,806.00**

CAPITAL REGION WAT

1. Bid Item No. 8 is the insta
2. The extended cost was cal
3. The extended costs for bid
4. The total extended cost wa
5. The total project cost was
6. The calculated percentage
7. The total cost for Bid Item
8. The adusted unit cost inch

BID ITEM

6
7
8

12

ER EXPLANATION OFADJUSTED UNIT COST:
llation of 24" PVC Sanitary Sewer Pipe.
culated as the Quanity times the Unit Cost (965 l.f. x $150/l.f. = $144,750)
items 6, 7, 8, and 12 total $445,540 and represent the major rehab/replacement bid items.
is divided by the extended cost for Bid item No. 8 to yield its percentage. ($144,750/$445,540=0.3248 or 32.5%)
determined by adding the engineering fees and the final construction contract amount.
was multiplied by the total project cost. (32.5% x $1,284,780 = $417,408)
No. 8 was divided by the bid quantity to determine the unit cost for the bid item ($417,408/965 l.f. = $433/l.f.)
ides the proporationate amount of all other bid items required for the project (mobilization, restoration, reconnections, etc).

MAJOR LINE ITEMS

15" SDR 35 PVC SANITARY SEWER PIPE INSTALLATION
18" PS46 PVC SANITARY SEWER PIPE INSTALLATION
24" PS115 PVC SANITARY SEWER PIPE INSTALLATION
24" CURED-IN-PLACE PIPE LINING

1

The Asylum Run Interceptor Rehabilitation Project included 4 major pipe rehabilitation and replacement items. These are bid item N
Bid Item No. 8 is the installation of 24" PVC Sanitary Sewer Pipe.
The extended cost was calculated as the Quanity times the Unit Cost ($965 l.f. x $150/l.f. = $144,750)
The extended costs for bid items 6, 7, 8, and 12 were totaled ($445,540)
The total extended cost was divided by the extended cost for Bid item No. 8 to yield its proportion. ($144,750/$445,540=
The total project cost was determined by adding the engineering fees and the final construction contract amount.
The calculated proportion was multiplied byt the total project cost. (32.5% x $1,284,780 = $417,408)
the total cost for Bid Item No. 8 was divided by the bid quantity to determine the unit cost for the bdi item ($417,408/96

Bid Item No. 12 is rehabilitation of 24" pipe using Cured-in-Place Pipe (CIPP) lining.
The extended cost was calculated as the Quanity times the Unit Cost.
The extended costs for these four major items were totaled ($445,540)
The total extended cost was divided by the extended cost for Bid item No. 12 to yield its proportion. ($7,200/$445,540=0
The total project cost was determined by adding the engineering fees and the final construction contract amount.
The calculated proportion was multiplied byt the total proejct cost. (1.6% x $1,284,780 = $20,762)
the total cost for Bid Item No. 8 was divided by the bid quantity to determine the unit cost for the bdi item ($20,762/60 l.

QTY	UNIT	UNIT COST	EXTENDED COST	% of total rehab/replacement cost	TOTAL CONSTRUCTION COST FOR BID
60	LF	$120.00	$7,200.00	1.6%	$17,862
47	LF	$140.00	$6,580.00	1.5%	$16,323
965	LF	$150.00	$144,750.00	32.5%	$359,091
1072					
2126	LF	135	$ 287,010.00	64.4%	$712,004
2126					
		TOTALS	**$445,540.00**	**100%**	**$1,105,280.25**

os. 6, 7, 8, and 12.

0.3248 or 32.5%)

5 l.f. = $433/l.f.)

.016 or 1.6%)

f. = $346/l.f.

ENGINEERING, LEGAL, OTHER COSTS	$	179,500
CONSTRUCTION BID AMOUNT	$	1,067,600
FINAL CONSTRUCTION VALUE	$	1,105,280
5 **OTAL PROJECT COST**	**$**	**1,284,780**

*these values match the CIP cost summary xls sheet

TOTAL PROJECT COST FOR BID ITEM	**ADJUSTED UNIT COST**	
$20,762	$346	LF
$18,974	$404	LF
6 $417,408	7 $433	LF
$827,636	$389	LF

$1,284,780.25